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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,903	12/12/2003	Joerg Schaffer	GK-ZEI-3224 / 500343.2023	2341
75	590 05/17/2005		EXAMINER .	
Gerald H. Kiel, Esq. REED SMITH LLP			FORD, ALLISON M	
599 Lexington Avenue			ART UNIT	PAPER NUMBER
New York, NY 10022-7650			1651	
		DATE MAILED, 05/17/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Action Comme	10/734,903	SCHAFFER ET AL.				
Office Action Summary	Examiner	Art Unit				
	Allison M. Ford	1651				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 18 February 2005.						
•	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex						
Disposition of Claims						
4)⊠ Claim(s) <u>1-3,5 and 6</u> is/are pending in the application.						
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-3,5 and 6</u> is/are rejected.	☑ Claim(s) <u>1-3,5 and 6</u> is/are rejected.					
7) Claim(s) is/are objected to.	Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or	election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) acce	10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary (PTO-413) Paper No(s)/Mail Date					
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date		ce of Informal Patent Application (PTO-152)				

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DETAILED ACTION

Status of Application

Applicant's amendments to claims 1-3 and 5-6, in the response filed 2/18/05, have been entered. Claim 4 has been cancelled. Claims 1-3 and 5-6 remain pending in the current application.

Response to Arguments

Applicant's arguments filed in the response of 2/18/05 have been considered, but are not persuasive.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 and 5-6 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for exhibiting fluorescence excitation at 540 nm does not reasonably provide enablement for exhibiting fluorescence excitation at any wavelength of 100 nm or greater. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In the disclosure applicant teaches using glutardialdehyde to simultaneously fix and "stain" cells to cause them to fluoresce; they claim the fluorescence due to the glutardialdehyde is capable of being excited by wavelengths 100 nm or greater. However, their complete lack of experimental evidence and working examples does not show that they achieved excitation at any wavelength; in fact, they failed to teach, even through incorporation by reference, why or how the glutardialdehyde induces fluorescence.

Glutardialdehyde induced fluorescence is known and taught in the art, for example, Collins et al teach the stabilizing cross-linking of glutardialdehyde produces the fluorophores that fluoresce (See Pg. 411).

Collins performs experiments on crayfish rhaboms, treating the cells with glutardialdehyde and measuring the

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resulting fluorescence (See Pg. 411); however, Collins reports fluorescence was maximally excited at a wavelength of 540 nm, but fluorescence was achieved over the range of 420-560 nm (See Fig. 1A). Also, Frank et al performs experiments on platelets, treating the cells with glutardialdehyde, and achieving fluorescence in the range of 450-490 nm (See Pg. 376, col. 1).

Therefore, while applicant may claim glutardialdehyde is capable of fluorescence excitation in the range of 420-560 nm, with reference to Collins et al, they are not enabled to for an excitation range of 100 nm or greater, or even 350-700 nm (Claim 3), or even 450-650 nm (Claim 2) without providing evidence that they have successfully excited the fluorophores produced by glutardialdehyde at any wavelength 100 nm or greater, or spanning 350-700 nm, or even 450-650 nm. Claims 5-6 have the limitations of claim 1, and thus are rejected on the same basis.

Applicant arguments do not provide any evidence or reasoning to overcome the enablement rejection set forth above. Rather, applicant reinforces the examiner's point that spectral range of fluorescence is very narrow and specific for each type of dye. In the present application applicant is using glutardialdehyde as the 'dye' to cause the cells to fluoresce; the prior art teaches glutardialdehyde induced fluorescence is detectable in the spectral range of 420-560 nm (See Collins, Pg. 376, col. 1). Therefore, applicant's test preparation, comprising glutardialdehyde-induced-fluorescing cells, will only have detectable fluorescent emission when excited in the spectral range of 420-560 nm, not 100 nm or greater.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 5-6 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant's claim 1 is directed to a test preparation for optical microscopes, comprising an object carrier and a cell structure fixed by glutardialdehyde, which enables a freely selectable fluorescence excitation

in a wavelength region with a spectral range of 100 nm or greater. It is still not clear what is intended by "freely selectable fluorescence excitation." If applicant intends to claim the fixative compound permits fluorescence excitation in a broad range of wavelengths, including 100 nm and greater, it needs to be clarified to read as such. It is not clear how a compound enables "freely selectable fluorescence excitation, as fluorescing compounds have narrow ranges of fluorescence that can be used to detect fluorescence signals, they are not "freely selectable," but fixed ranges. Claims 2-3 and 5-6 have the limitations of claim 1 and are rejected on the same basis.

Applicant's claims 2-3 and 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant's amendment to claim 1 to require the cell structure be fixated using glutardialdehyde does obviate the rejection under 112, first paragraph regarding lack of sufficient written description required to claim the use of any compound the fix the cell structures; however, from the way the limitation has been incorporated into claim 1, it is unclear if "the compound" referred to in claims 2-3 and 5 is the glutardialdehyde. It would be more appropriate to write claim 1 as: "...a biological cell structure arranged on the object carrier, wherein the cell structure is fixed with glutardialdehyde to enable a freely selectable fluorescence excitation in a wavelength region..." and then to write dependent claims 2-3 as: "... wherein the cells structure is fixed with glutardialdehyde..." and claim 5 as: "wherein an antifading reagent is added to the glutardialdehyde."

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Frank et al (*J. Biomed Mater. Res*, 2000), in light of DakoCytomation.

Frank et al teach glutardialdehyde induced fluorescent thrombocytes on a slide for visualization with computer-aided fluorescence microscopy; fluorescing cells (which applicant calls a cell structure) on an object carrier read on what applicant calls a test preparation for a microscope. (See Pg. 375, col. 1). Frank et al use polymer discs as object carriers. The test preparations were prepared by fixing platelets onto polymer discs (which applicant calls object carriers) using 1.5% glutardialdehyde solution in PBS glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater), the glutardialdehyde both fixes the cells to the discs and induces fluorescence in the cells (See Pg. 375, col. 2). After incubation the discs were removed and placed on microscope slides, one drop of fluorescence mounting media was added and the platelets were detected with a fluorescence microscope at excitation levels of 450-490 nm (See Pg 376, col. 1) (Claims 1-3). The fluorescence mounting media was obtained from DAKO (DakoCytomations), the fluorescence mounting media is an anti-fading agent (See DakoCytomation Product Sheet) (Claim 5). The emission was detected at 515 nm (See Pg. 376, col. 2).

Applicant argues that the Frank et al do not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater. Also, applicant argues that the test preparation disclosed by Frank et al is not disclosed as usable for testing the quality, function or performance of their microscopes.

However, as stated above, Frank et al teaches platelets (which applicant calls a cell structure) fixed on polymer discs (which applicant calls object carriers) using glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater). A drop of anti-fading reagent was then added to the test preparations of Frank et al, and fluorescence was detected in a spectral range of 450-490 nm. Therefore Frank et al teach the same test preparations claimed by applicant. In response to applicant's argument that the slides of Frank et al do not read on a "test preparation for a microscope that tests the quality, function or

performance of the microscopes," the examiner points out that the claims are drawn to a preparation comprising an object carrier and biological cells that emit glutardialdehyde-induced fluorescence.

Because the prior art teaches the same preparation that comprises object carrier and biological cells that emit glutardialdehyde-induced fluorescence, the prior art does in fact anticipate the claimed subject matter. Because the article in the prior art is one and the same as in the current application, it can inherently function as a test preparation for testing the quality, function and/or performance of microscopes. See *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) and *In re Schreiber*, 128 F.3d at 1478, 44 USPQ2d at 1432.

Claim Rejections - 35 USC § 102/103

Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being obvious over Collins et al (*J Histochem Cytochem*, 1981).

Collins et al teach crayfish rhaboms with glutardialdehyde-induced fluorescence. Collins et al fix crayfish rhaboms (cells, which applicant calls cell structures) with 1.9% glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater) for 20 min onto (See Pg. 411, col. 1-2). The crayfish rhaboms with glutardialdehyde were observed on a Zeiss fluorescence microscope, under excitation at 420-560 nm. Optimal excitation was achieved at 540 nm, at which point the emission was 560 nm (See Pg. 411, col. 2- Pg. 413, col. 1 and Fig. 1A) (Claims 1-3).

Though Collins et al do not explicitly state that the crayfish rhaboms were arranged on an object carrier, this appears to be an understood detail, as cells cannot hold their own structure on a microscope stand, and it is common practice in the art to use a microscope slide to observe specimens.

However, even if Collins et al do not place the crayfish rhaboms on a separate object carrier, such as a microscope slide, and there is, in fact, no anticipation, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the cells on a microscope slide in order to view

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them on microscope stand. One of ordinary skill in the art would have been motivated to the cells on a microscope slide for viewing on a microscope stand so that the crayfish rhaboms have a stable surface on which to rest, so they do not fall through the aperture in the microscope stage. One would have expected success because it is well known how to use a microscope slide to view specimens on any type of microscope, including Zeiss fluorescence microscopes.

Additionally, though Collin et al is silent on the density of the crayfish rhabom cells (which applicant calls cell structures). However, it appears the cell density, as claimed, is the same as in the films in the prior art, and thus Collins et al anticipates the subject matter.

However, even if the reference cell density of the crayfish rhabom samples and the claimed cell density are not one and the same and there is, in fact, no anticipation, the reference cell density of the tissue films would, nevertheless, have rendered to one of ordinary skill in the art at the time the invention was made the claimed cell density an obvious design choice based on availability of cells and optimization. The degree of fluorescence is a result effective variable, dependent on the density of stained cells present in the observed sample. Therefore, the number of cells in the cell samples would be routinely optimized by one of ordinary skill in the art in practicing the invention to obtain the desired fluorescent effect.

Applicant argues that the Collins et al do not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater. Also, applicant argues that the test preparation disclosed by Collins et al is not disclosed as usable for testing the quality, function or performance of their microscopes.

However, as stated above, Collins et al teaches crayfish rhaboms (which applicant calls a cell structure) fixed with glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater), it appears that microscope slides were used as the object carrier, however, if not, it would have been obvious to use microscope slides as

the object carriers. Therefore Collins et al teach the same test preparations claimed by applicant. In response to applicant's argument that the slides of Collins et al do not read on a "test preparation for a microscope that tests the quality, function or performance of the microscopes," the examiner points out that the claims are drawn to a preparation comprising an object carrier and biological cells that emit glutardialdehyde-induced fluorescence. Because the prior art teaches the same preparation that comprises object carrier and biological cells that emit glutardialdehyde-induced fluorescence, the prior art does in fact anticipate the claimed subject matter. Because the article in the prior art is one and the same as in the current application, it can inherently function as a test preparation for testing the quality, function and/or performance of microscopes. See *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) and *In re Schreiber*, 128 F.3d at 1478, 44 USPQ2d at 1432.

Claim 6 remains rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Frank et al (*J. Biomed Mater. Res*, 2000).

Frank et al teach glutardialdehyde induced fluorescent thrombocytes on a slide for visualization with computer-aided fluorescence microscopy; fluorescing cells (which applicant calls a cell structure) on an object carrier read on what applicant calls a test preparation for a microscope (See Pg. 375, col. 1). Frank et al use polymer discs as object carriers. The test preparations were prepared by fixing platelets onto polymer discs (which applicant calls object carriers) using 1.5% glutardialdehyde solution in PBS glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater), the glutardialdehyde both fixes the cells to the discs and induces fluorescence in the cells (See Pg. 375, col. 2). After incubation the discs were removed and placed on microscope slides, one drop of fluorescence mounting media was added and the platelets were detected with a fluorescence microscope at excitation levels of 450-490 nm (See Pg 376, col. 1) (Claims 1-3). The fluorescence mounting media was obtained from DAKO (DakoCytomations), the fluorescence mounting media is an anti-fading agent (See DakoCytomation Product Sheet) (Claim 5). The emission was detected at 515 nm (See Pg. 376, col. 2).

Frank et al teach glutardialdehyde induced fluorescent thrombocytes on a slide for visualization with computer-aided fluorescence microscopy; fluorescing cells (which applicant calls a cell structure) on an object carrier read on what applicant calls a test preparation for a microscope (See Pg. 375, col. 1). Frank et al use polymer discs as object carriers. The test preparations were prepared by fixing platelets onto polymer discs (which applicant calls object carriers) using 1.5% glutardialdehyde solution in PBS glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater), the glutardialdehyde both fixes the cells to the discs and induces fluorescence in the cells (See Pg. 375, col. 2). After incubation the discs were removed and placed on microscope slides, one drop of fluorescence mounting media was added and the platelets were detected with a fluorescence microscope at excitation levels of 450-490 nm (See Pg 376, col. 1) (Claims 1-3). The emission was detected at 515 nm (See Pg. 376, col. 2).

Frank et al is silent on the density of the platelets plated on the discs. However, it appears the cell density, as claimed, is the same as in the prior art, and thus Frank et al anticipates the subject matter.

However, even if the reference cell density and the claimed cell density are not one and the same and there is, in fact, no anticipation, the reference cell density would, nevertheless, have rendered to one of ordinary skill in the art at the time the invention was made the claimed density of the plated cells an obvious design choice based on availability of cells and optimization. The degree of fluorescence is a result effective variable, dependent on the density of stained cells present in the observed sample. Therefore, the density of the plated cells would be routinely optimized by one of ordinary skill in the art in practicing the invention to obtain the desired fluorescent effect.

Thus, the claimed invention as a whole was at least <u>prima facie</u> obvious, if not anticipated by the references, especially in the absence of evidence to the contrary.

Applicant argues that the Frank et al reference is not acceptable for rejection of claim 6 for the same reasons as argued against claim 1, stated above. The examiner rebuts the argument with the same answer, stated above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Collins et al (*J Histochem Cytochem*, 1981), in view of DakoCytomation.

Collins et al teach crayfish rhaboms with glutardialdehyde-induced fluorescence. Collins et al fix crayfish rhaboms (cells, which applicant calls cell structures) with 1.9% glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater) for 20 min onto (See Pg. 411, col. 1-2). The crayfish rhaboms with glutardialdehyde were observed on a Zeiss fluorescence microscope, under excitation at 420-560 nm. Optimal excitation was achieved at 540 nm, at which point the emission was 560 nm (See Pg. 411, col. 2- Pg. 413, col. 1 and Fig. 1A) (Claims 1-3).

Though Collins et al do not explicitly state that the crayfish rhaboms were arranged on an object carrier, this appears to be an understood detail, as cells cannot hold their own structure on a microscope stand, and it is common practice in the art to use a microscope slide to observe specimens.

However, even if Collins et al do not place the crayfish rhaboms on a separate object carrier, such as a microscope slide, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the cells on a microscope slide in order to view them on microscope stand. One of ordinary skill in the art would have been motivated to the cells on a microscope slide for viewing on a microscope stand so that the crayfish rhaboms have a stable surface on which to rest, so they do not fall through the aperture in the microscope stage. One would have expected success because it is well

known how to use a microscope slide to view specimens on any type of microscope, including Zeiss fluorescence microscopes.

Though Collins et al does not teach use of an anti-fading reagent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add an anti-fading reagent to the prepared, stained slide in order to prevent the fluorescence from fading. One of ordinary skill in the art would have been motivated to use an anti-fading reagent in order to preserve the fluorescence of the stain so that it may be viewed long after mounting, as fluorchromes have a tendency to fade over a relatively short period of time. One would have expected success because anti-fading agents are commonly used in the art for this very purpose; for example, DakoCytomation sells a fluorescence mounting medium specially designed for cell specimens stained with fluorescent stains; it enhances visualization when viewed under a fluorescence microscope, and retards fading of the fluorescence (Claim 5). Therefore the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that the Collins et al do not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater. Also, applicant argues that the test preparation disclosed by Collins et al is not disclosed as usable for testing the quality, function or performance of their microscopes.

However, as stated above, Collins et al teaches crayfish rhaboms (which applicant calls a cell structure) fixed with glutardialdehyde (which applicant calls a compound that enables a freely selectable fluorescence in a wavelength region with a spectral range of 100 nm or greater), it appears that microscope slides were used as the object carrier, however, if not, it would have been obvious to use microscope slides as

the object carriers. Therefore Collins et al teach the same test preparations claimed by applicant, as taught above. In response to applicant's argument that the slides of Collins et al do not read on a "test preparation for a microscope that tests the quality, function or performance of the microscopes," the examiner points out that the claims are drawn to a preparation comprising an object carrier and biological cells that emit glutardialdehyde-induced fluorescence. Because the prior art teaches the same preparation that comprises object carrier and biological cells that emit glutardialdehyde-induced fluorescence, the prior art does in fact anticipate the claimed subject matter. See teachings above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, examiner believes there is motivation to combine the references because it is common practice in the art to apply an antifading reagent, such as the mounting medium sold by DakoCytomation, to fluorescent samples in order to prolong fluorescence. Additionally, applicant has not provided any reasoning or arguments to a point why it would not be appropriate to combine the two references.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

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is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Allison M. Ford whose telephone number is 571-272-2936. The examiner can normally be

reached on 7:30-5 M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Allison M Ford Examiner

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EON B. LANKFORD, JR.

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